

ABSTRACT

MORPHOLOGICAL CHANGES OF MUCOSAL EPITHELIAL CELLS OF MICE LIP (*Mus musculus*) EXPOSED TO ELECTRIC CIGARETTE SMOKE

PERUBAHAN MORFOLOGI SEL EPITEL MUKOSA BIBIR MENCIT (*Mus Musculus*) YANG DIPAPARI ASAP ROKOK ELEKTRIK

Background. Electric cigarettes or "Electronic Nicotine Delivery Systems" are cigarettes operated using battery power. This electric cigarette contains synthetic nicotine, diethylene glycol, nitrosamines or TSNA (tobacco-specific nitrosamines) and carbonmonoxide which are carcinogenic. Changes toward malignancy because of this electric cigarette smoke exposure are being done by looking at the cells with hyperchromatic nucleus and measuring the thickened keratin. **Methods.** Treated mice were placed in a sealed box, cigarette smoke was drawn using a syringe, then the smoke was being released from the syringe to the box containing mice. The electric cigarette smoke exposure to mice in the treatment group was being performed 20 times a day for a month, then the mice were euthanized and the lip were being cut to see the changes in epithelial layer. **Results.** The data was being tested using one sample Kolmogorov-Smirnov and it's shown that the data is normally distributed. Homogeneity test using levene's test shows that the data is homogeneous. From the Independent T-Test, it is concluded that there are significant differences. **Conclusion.** From these results it can be concluded that there is a change in the morphology of the mucosal epithelial cells of mice lip due to electric cigarette smoke exposure.

Keywords: Electric cigarette, malignancy, changes of epithelial cells.